

AMENDMENTS TO THE CLAIMS

Listing Of Claims:

1. (Currently amended) In a coagulation assay for determining the propensity of patient risk for thrombotic disease wherein a phospholipid comprising phosphatidylethanolamine and phosphatidylserine is employed as a reagent and activated protein C is utilized in the assay, the improvement comprising conducting said assay with an oxidized phospholipid reagent to obtain a first result and a non-oxidized phospholipid reagent otherwise identical in composition to said oxidized phospholipid reagent to obtain a second result, and comparing said first and second result, and if said first result is prolonged in comparison to said second result, concluding that said patient is likely normal but if said first result is essentially the same as said second result, concluding that said patient likely has antibodies which block the function of oxidized phospholipids to a greater extent than unoxidized phospholipids and that said patient risk for thrombotic disease is higher than that observed for normal patients.

2. (Withdrawn) A reagent for use in a coagulation assay comprising an oxidized phospholipid.

3. (Withdrawn) The reagent of Claim 2, wherein said oxidized phospholipid comprises phosphatidylethanolamine.

4. (Withdrawn) The reagent of Claim 3, further comprising phosphatidylserine.

5. (Withdrawn) The reagent of Claim 4, further comprising phosphatidylcholine.

6. (Withdrawn) The reagent of Claim 5, wherein said reagent comprises 40% phosphatidylethanolamine, 20% phosphatidylserine and 40% phosphatidylcholine.

7. (Currently Amended) An assay to determine the presence of blocking antibodies in a patient plasma sample, which blocking antibodies selectively block the ~~action of~~ enhanced anticoagulant effect of activated protein C in the presence of oxidized ~~lipids~~ phospholipids, comprising:

(a) conducting a clotting assay by obtaining a first aliquot of said sample, providing activated protein C, providing an oxidized phospholipid reagent comprising phosphatidylethanolamine and phosphatidylserine, initiating clotting and measuring the time of clotting to obtain a first clotting time;

(b) simultaneously or thereafter conducting a clotting assay by obtaining a second aliquot of said sample, providing activated protein C, providing an unoxidized phospholipid reagent otherwise identical in composition to said oxidized phospholipid reagent in step (a), initiating clotting and measuring the time of clotting to obtain a second clotting time;

(c) comparing said first clotting time with said second clotting time and determining that the patient sample likely contains blocking antibodies which block the ~~function~~ action of activated protein C on oxidized lipids to a greater extent than on unoxidized lipids if said first clotting time is not prolonged or is essentially the same as compared to said second clotting time.

8. (Currently Amended) The assay of Claim 7, further comprising obtaining baseline clotting values, said baseline clotting values obtained by measuring the clotting time of a third aliquot of said sample in the presence of an oxidized phospholipid reagent comprising phosphatidylethanolamine and phosphatidylserine, but without addition of activated protein C, and obtaining a third clotting time baseline value, and measuring the clotting time of a fourth aliquot of said sample in the presence of a non-oxidized phospholipid reagent, otherwise identical in composition to said oxidized phospholipid reagent but without addition of activated protein C, and obtaining a fourth clotting time baseline value, thereby determining if a given patient sample exhibits extended clotting time in the absence of activated protein C in comparison with a normal plasma sample, and concluding that said patient sample may have other components which may account for a

prolonged clotting time when clotting time is tested in the presence of activated protein C according to steps (a) and (b).

9. (Canceled) The assay of Claim 7 or 8, wherein each of said phospholipid reagents comprises phosphatidylethanolamine.

10. (Canceled) The assay of Claim 9, wherein each of said phospholipid reagents further comprises phosphatidylserine.

11. (Currently Amended) The assay of Claim ~~[[10]]~~ 7 or 8, wherein each of said phospholipid reagents further comprise phosphatidylcholine.

12. (Currently Amended) The assay of Claim ~~[[11]]~~ 7 or 8, wherein each of said phospholipid reagents comprise 40% phosphatidylethanolamine, 20% phosphatidylserine and 40% phosphatidylcholine.

13. (Currently Amended) An assay to determine the propensity of a patient to have a thrombotic episode by measuring a first clotting time of a plasma sample taken from said patient in the presence of activated protein C and an oxidized phospholipid reagent comprising phosphatidylethanolamine and phosphatidylserine, measuring a second clotting time of a plasma sample taken from said patient in the presence of activated protein C and an unoxidized phospholipid reagent otherwise identical in composition to said oxidized phospholipid reagent, and analyzing the results, determining that said patient has a propensity for a thrombotic episode if said first clotting time is not prolonged as compared to said second clotting time.

14. (Currently Amended) The assay of Claim 13, wherein a patient immunoglobulin fraction is obtained from said patient's serum or from said plasma sample, and said immunoglobulin ~~[[portion]]~~ fraction is utilized for said clotting time measurements.

15. (Amended) The assay of Claim 13 ~~[[or 14]]~~, further comprising diluting said plasma sample ~~or immunoglobulin fraction thereof~~ in an appropriate amount of normal plasma prior to measuring said first and second clotting times.

16. (Original) The assay of Claim 15, wherein said appropriate amount of normal plasma is about three parts for each one part of patient plasma sample.

17. (Currently Amended) The assay of Claim 61 ~~[[15]]~~, wherein said appropriate amount of normal plasma is sufficient to make said immunoglobulin fraction concentration about 0.6 mg/ml in said assay.

18. (Canceled) The assay of Claim 13 or 14, wherein each of said phospholipid reagents comprise phosphatidylethanolamine.

19. (Canceled) The assay of Claim 18, wherein each of said phospholipid reagents further comprise phosphatidylserine.

20. (Currently Amended) The assay of Claim ~~[[19]]~~ 13 or 14 wherein each of said phospholipid reagents further comprise phosphatidylcholine.

21. (Currently Amended) The assay of Claim ~~[[20]]~~ 13 or 14, wherein each of said phospholipid reagents comprise 40% phosphatidylethanolamine, 20% phosphatidylserine and 40% phosphatidylcholine.

22. (Canceled) The assay of Claim 15, wherein each of said phospholipid reagents comprise phosphatidylethanolamine.

23. (Canceled) The assay of Claim 22, wherein each of said phospholipid reagents further comprise phosphatidylserine.

24. (Currently Amended) The assay of Claim ~~[[23]]~~ 15 wherein each of said phospholipid reagents further comprise phosphatidylcholine.

25. (Canceled) The assay of Claim 24 wherein each of said phospholipid reagents further comprise phosphatidylcholine.

26. (Canceled) The assay of Claim 16 or 17, wherein each of said phospholipid reagents comprise phosphatidylethanolamine.

27. (Canceled) The assay of Claim 26, wherein each of said phospholipid reagents further comprise phosphatidylserine.

28. (Currently Amended) The assay of Claim ~~[[27]]~~ 16 or 17 wherein each of said phospholipid reagents further comprise phosphatidylcholine.

29. (Currently Amended) The assay of Claim ~~[[28]]~~ 16 or 17, wherein each of said phospholipid reagents comprise 40% phosphatidylethanolamine, 20% phosphatidylserine and 40% phosphatidylcholine.

30. (Canceled) The assay of Claim 17, wherein each of said phospholipids reagents comprise phosphatidylethanolamine.

31. (Canceled) The assay of Claim 30, wherein each of said phospholipids reagents further comprise phosphatidylserine.

32. (Canceled) The assay of Claim 31 wherein each of said phospholipids reagents further comprise phosphatidylcholine.

33. (Canceled) The assay of Claim 32, wherein each of said phospholipids reagents comprise 40% phosphatidylethanolamine, 20% phosphatidylserine and 40% phosphatidylcholine.

34. (New) The assay of Claim 7, further comprising the steps of:

(d) conducting a third clotting assay by obtaining a first aliquot of a normal patient plasma, providing activated protein C, providing said oxidized phospholipid reagent, initiating clotting and measuring the time of clotting to obtain a third clotting time;

(e) conducting a fourth clotting assay by obtaining a second aliquot of said normal patient plasma, providing activated protein C, providing said non-oxidized phospholipid reagent, initiating clotting and measuring the time of clotting to obtain a fourth clotting time; and

(f) concluding that if the first clotting time is not as prolonged as the second clotting time, taking into account how much said third clotting time is prolonged over said fourth clotting time, then said patient sample likely contains said blocking antibodies

35. (New) The assay of Claim 13, further comprising the steps of:

(d) conducting a clotting assay by obtaining a first aliquot of a normal patient plasma, providing activated protein C, providing said oxidized phospholipid reagent, initiating clotting and measuring the time of clotting to obtain a third clotting time;

(e) conducting a clotting assay by obtaining a second aliquot of said normal patient plasma, providing activated protein C, providing said non-oxidized phospholipids reagent, initiating clotting and measuring the time of clotting to obtain a fourth clotting time; and

(f) concluding that if the first clotting time is not as prolonged as the second clotting time, taking into account how much said third clotting time is prolonged over said fourth clotting time, then said patient has a higher propensity for thrombotic disease than a subject with normal plasma.

36. (New) The assay of Claim 7 or 8, wherein said phospholipid reagent comprises an effective amount of phosphatidylethanolamine to provide a differential, detectable effect between normal (control) plasma and plasma from patients having a propensity for thrombotic episodes and an effective amount of phosphatidylserine to complement said phosphatidylethanolamine in said clotting assay.

37. (New) The assay of Claim 7 or 8, wherein said phospholipid reagent comprises from about 10 to about 50 % phosphatidylethanolamine and from about 5 to about 50% phosphatidylserine.

38. (New) The assay of Claim 7 or 8, wherein said phospholipid reagent comprises phosphatidylserine in an amount from about 5 to about 25%.

39. (New) The assay of Claim 7 or 8, wherein said phospholipid reagent further comprises a phospholipid selected from the group consisting of phosphatidyl choline and zwitterionic phospholipids which have no net charge at neutral pH.

40. (New) The assay of Claim 37, wherein said phospholipid reagent further comprises a phospholipid selected from the group consisting of phosphatidyl choline and zwitterionic phospholipids which have no net charge at neutral pH.

41. (New) The assay of Claim 38, wherein said phospholipid reagent further comprises a phospholipid selected from the group consisting of phosphatidyl choline and zwitterionic phospholipids which have no net charge at neutral pH.

42. (New) The assay of Claim 7 or 8, wherein said phospholipid reagent comprises about 40% phosphatidylethanolamine, about 20% phosphatidylserine and the remainder a phospholipid selected from the group consisting of phosphatidyl choline and zwitterionic phospholipids which have no net charge at neutral pH.

43. (New) The assay of Claim 13 or 14 wherein said phospholipid reagent comprises an effective amount of phosphatidylethanolamine to provide a differential, detectable effect between normal (control) plasma and plasma from patients having a propensity for thrombotic episodes and an effective amount of phosphatidylserine to complement said phosphatidylethanolamine in said clotting assay.

44. (New) The assay of Claim 13 or 14, wherein said phospholipid reagent comprises from about 10 to about 50 % phosphatidylethanolamine and from about 5 to about 50% phosphatidylserine.

45. (New) The assay of Claim 13 or 14, wherein said phospholipid reagent comprises phosphatidylserine in an amount from about 5 to about 25%.

46. (New) The assay of Claim 13 or 14, wherein said phospholipid reagent further comprises a phospholipid selected from the group consisting of phosphatidyl choline and zwitterionic phospholipids which have no net charge at neutral pH.

47. (New) The assay of Claim 43, wherein said phospholipid reagent further comprises a phospholipid selected from the group consisting of phosphatidyl choline and zwitterionic phospholipids which have no net charge at neutral pH.

48. (New) The assay of Claim 44, wherein said phospholipid reagent further comprises a phospholipid selected from the group consisting of phosphatidyl choline and zwitterionic phospholipids which have no net charge at neutral pH.

49. (New) The assay of Claim 13 or 14 wherein said phospholipids reagent comprises about 40% PE, about 20% PS and the remainder a phospholipid selected from the group consisting of phosphatidyl choline and zwitterionic phospholipids which have no net charge at neutral pH.

50. (New) The assay of Claim 7 or 8, wherein clotting is initiated by addition of an initiator selected from the group consisting of Factor X-activating enzyme and Factor X_a.

51. (New) The assay of Claim 13 or 14, wherein clotting is initiated by addition of an initiator selected from the group consisting of Factor X-activating enzyme and Factor X_a.

52. (New) The assay of Claim 15, wherein clotting is initiated by addition of an initiator selected from the group consisting of Factor X-activating enzyme and Factor X_a.

53. (New) The assay of Claim 16, wherein clotting is initiated by addition of an initiator selected from the group consisting of Factor X-activating enzyme and Factor X_a.

54. (New) The assay of Claim 17, wherein clotting is initiated by addition of an initiator selected from the group consisting of Factor X-activating enzyme and Factor X_a.

55. (New) The assay of Claim 7 or 8, wherein a patient immunoglobulin fraction is obtained from said patient's serum or from said plasma sample, and said immunoglobulin fraction is utilized for said clotting time measurements.

56. (New) The assay of Claim 55, further comprising diluting said immunoglobulin fraction in an appropriate amount of normal plasma prior to measuring said first and second clotting times.

57. (New) The assay of Claim 56, wherein said appropriate amount of normal plasma is about three parts for each one part of patient sample.

58. (New) The assay of Claim 57, wherein said appropriate amount of normal plasma is sufficient to make said immunoglobulin fraction concentration about 0.6 mg/ml in said assay.

59. (New) The assay of Claim 7 or 8, further comprising diluting said plasma sample in an appropriate amount of normal plasma prior to measuring said first and second clotting times.

60. (New) The assay of Claim 59, wherein said appropriate amount of normal plasma is about three parts for each one part of patient plasma sample.

61. (New) The assay of Claim 14 further comprising diluting said immunoglobulin fraction in an appropriate amount of normal plasma prior to measuring said first and second clotting times.

62. (New) The assay of Claim 61 wherein said appropriate amount of normal plasma is about three parts for each one part of patient sample.